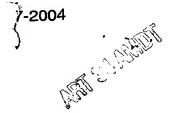


## Claims.

1). An apparatus for distributing powders on a support in a predetermined pattern, comprising: a belt conveyor (2) for transporting the support (3); a head for applying the powders (1), located above the conveyor (2), which head (1) comprises a ring-wound closed continuous belt (4) exhibiting a plurality of perforations arranged according to a predetermined pattern, which perforations are of a size which enables passage of predetermined quantities of powders; means for controlling a supply and delivery of powders through the perforations and for keeping the continuous belt (4) clean; means for controlling a movement of the continuous belt (4) in synchrony with a movement of the conveyor (2), characterised in that said means for controlling a supply and delivery of powders through the perforations and for keeping the continuous belt (4) clean comprise: a hopper (5) located at a short distance above the continuous belt (4); the hopper (5) exhibiting an outlet mouth which is transversally arranged with respect to the advancement direction of the continuous belt (4) and the conveyor (2), and which is delimited, perpendicular to the advancement direction of the continuous belt (4) and the conveyor (2), by a front edge (50) and a back edge (51); a fixed upper doctor (6) which operates at the front edge (50) and which is pressed against an upper face of the continuous belt (4) by an elastic element (9); a fixed lower doctor (8) which is pressed against a lower face of the continuous belt (4) and exerts thereon an antagonistic action to an action exerted by the fixed upper doctor (6); an adjustable doctor (7) which operates at the front edge (51) and is pressed against the upper face of the continuous belt (4) and is arranged opposite to and antagonistically to the fixed upper doctor (6); the adjustable doctor (7) being adjustable by sliding in a perpendicular direction to the back edge (51) and



the front edge (50) in order to regulate an aperture of the outlet mouth of the hopper (5).

- 2). The apparatus of claim 1, wherein the continuous belt (4) is not made of a textile material and does not present any unevenness in a thickness thereof.
- 3). The apparatus of claim 1 or 2, wherein the continuous belt (4) at sides thereof exhibits slots (40) for drawing, which slots (40) are arranged in longitudinal rows parallel to a longitudinal axis of the continuous belt (4).
- 4). The apparatus of claim 1 or 3, wherein the continuous belt (4) is partially wound on a plurality of rollers (10, 11, 12, 13) having parallel axes which are arranged transversally to an advancement direction of the continuous belt (4) and the conveyor (2).
- 5). The apparatus of claim 4, wherein a roller (10) of the plurality of rollers (10,11, 12, 13) is a drive roller and draws the continuous belt (4) in motion, and is equipped with radial projecting pins (14) which engage in the slots (40); the drive roller being located downstream, with reference to the advancement direction of the continuous belt (4) and the conveyor (2), of the means for controlling a supply and delivery of powders through the perforations and for keeping the continuous belt (4) clean.
- 6). The apparatus of claim 5; wherein the means for controlling a supply and delivery of powders through the perforations and for keeping the continuous belt (4) clean comprise: a hopper (5) located at a short distance above the continuous belt (4); the hopper (5) exhibiting an outlet mouth which is transversally arranged with respect to the advancement direction of the continuous belt (4) and the conveyor (2), and which is delimited, perpendicular to the advancement direction of the continuous belt (4) and the conveyor (2), by a front edge (50) and a back edge (51); a fixed upper doctor (6) which operates at the front edge (50) and which is pressed against an upper face of the continuous belt (4) by an elastic



element (9); a fixed lower doctor (8) which is pressed against a lower face of the continuous belt (4) and exerts thereon an antagonistic action to an action exerted by the fixed upper doctor (6); an adjustable doctor (7) which operates at the front edge (51) and is pressed against the upper face of the continuous belt (4) and is arranged opposite to and antagonistically to the fixed upper doctor (6); the adjustable doctor (7) being adjustable by sliding in a perpendicular direction to the back edge (51) and the front edge (50) in order to regulate an aperture of the outlet mouth of the hopper (5).

6.) 7): The apparatus of claim 5.6, wherein at least the fixed upper doctor (7) and the fixed lower doctor (8) are elastically deformable.